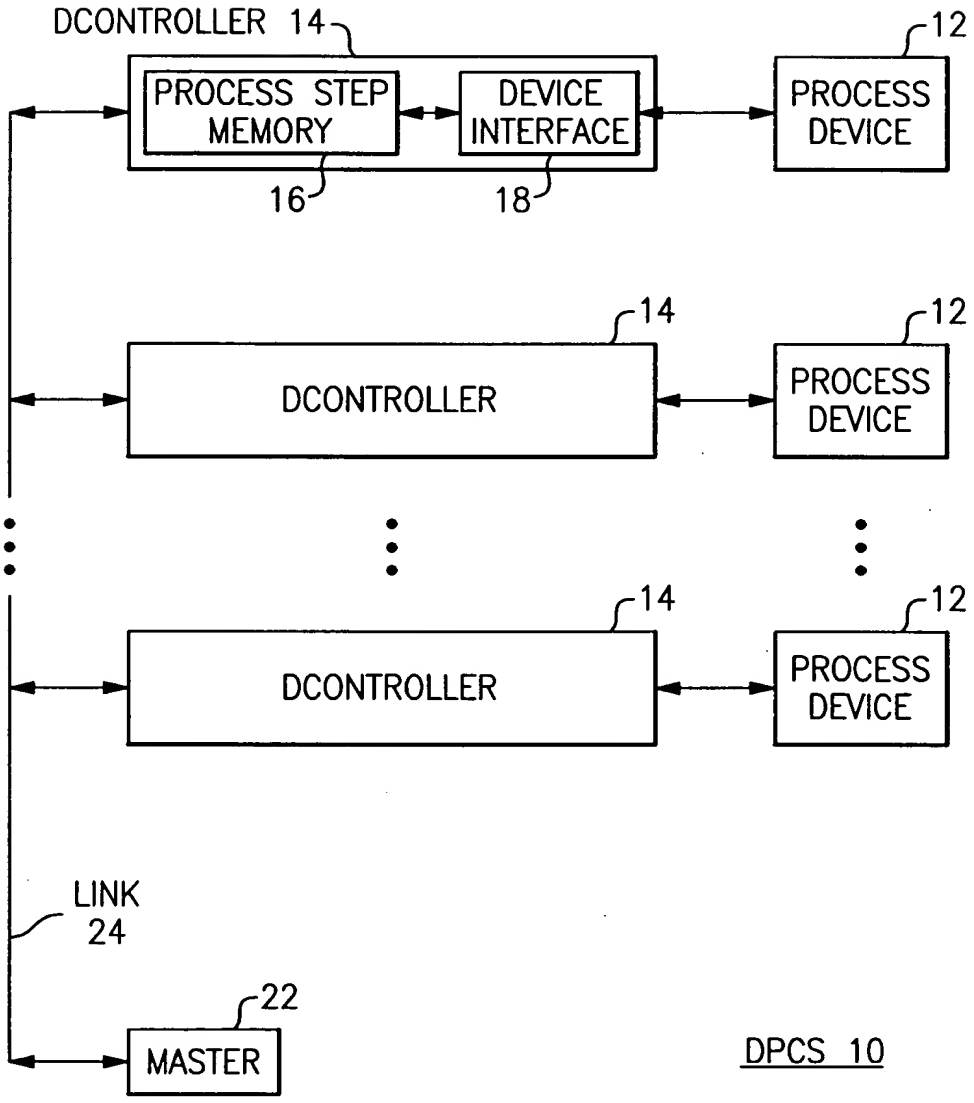
DCONTROLLER 14
PROCESS STEP MEMORY
DEVICE INTERFACE
16
18
12
PROCESS DEVICE
14
DCONTROLLER
12
PROCESS DEVICE
14
DCONTROLLER
12
PROCESS DEVICE
LINK 24
22
MASTER
DPCS 10

FIG.1

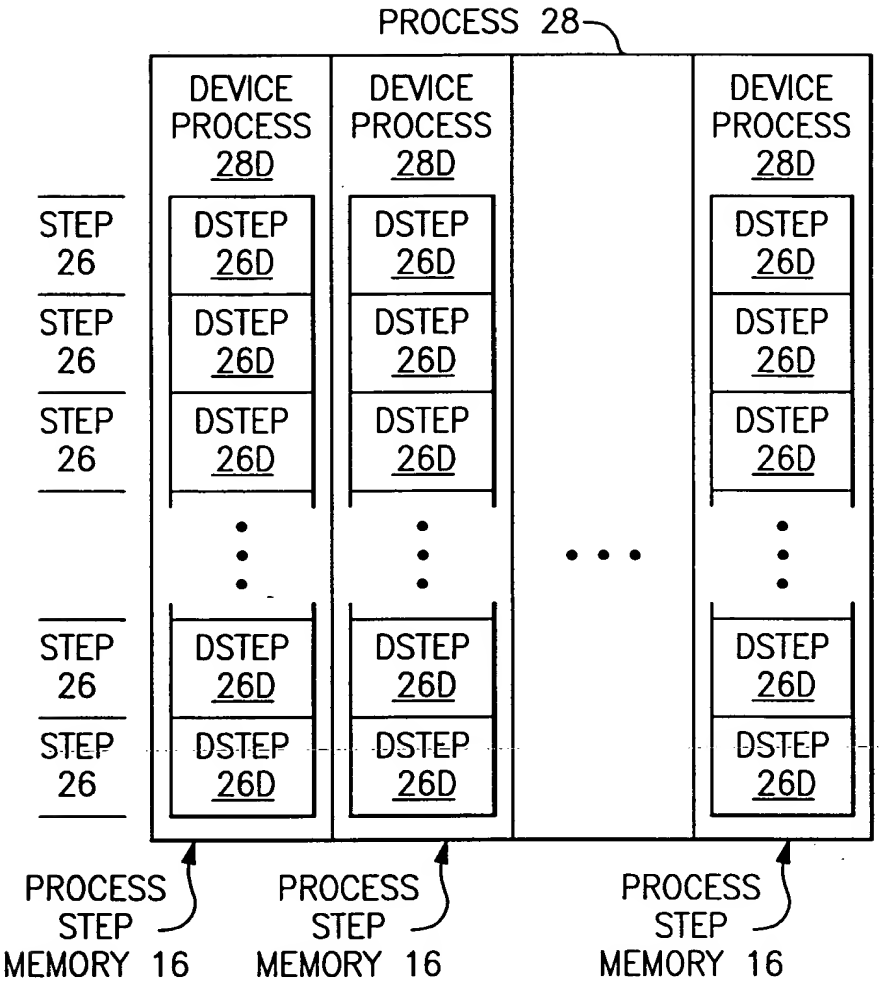
PROCESS 28
DEVICE PROCESS 28D
DEVICE PROCESS 28D
DEVICE PROCESS 28D
STEP 26
STEP 26
STEP 26
STEP 26
STEP 26
DSTEP 26D
PROCESS STEP MEMORY 16
PROCESS STEP MEMORY 16
PROCESS STEP MEMORY 16

FIG.2A

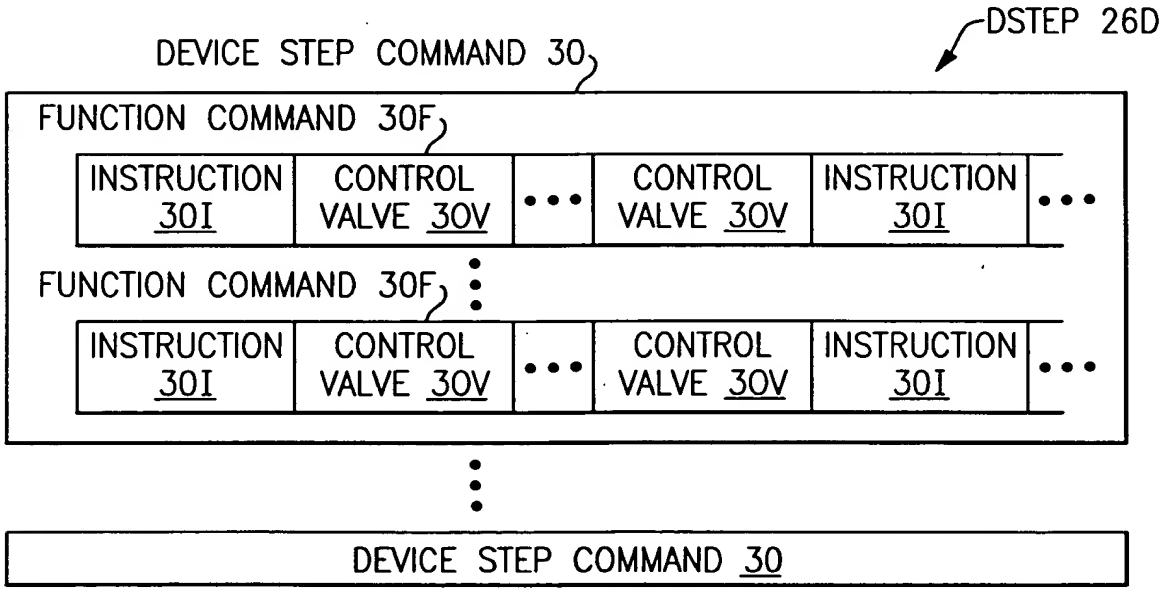
DSTEP 26D
DEVICE STEP COMMAND 30
FUNCTION COMMAND 30F
INSTRUCTION 30I
CONTROL VALVE 30V
CONTROL VALVE 30V
INSTRUCTION 30I
FUNCTION COMMAND 30F
INSTRUCTION 30I
CONTROL VALVE 30V
CONTROL VALVE 30V
INSTRUCTION 30I
DEVICE STEP COMMAND 30

FIG.2B

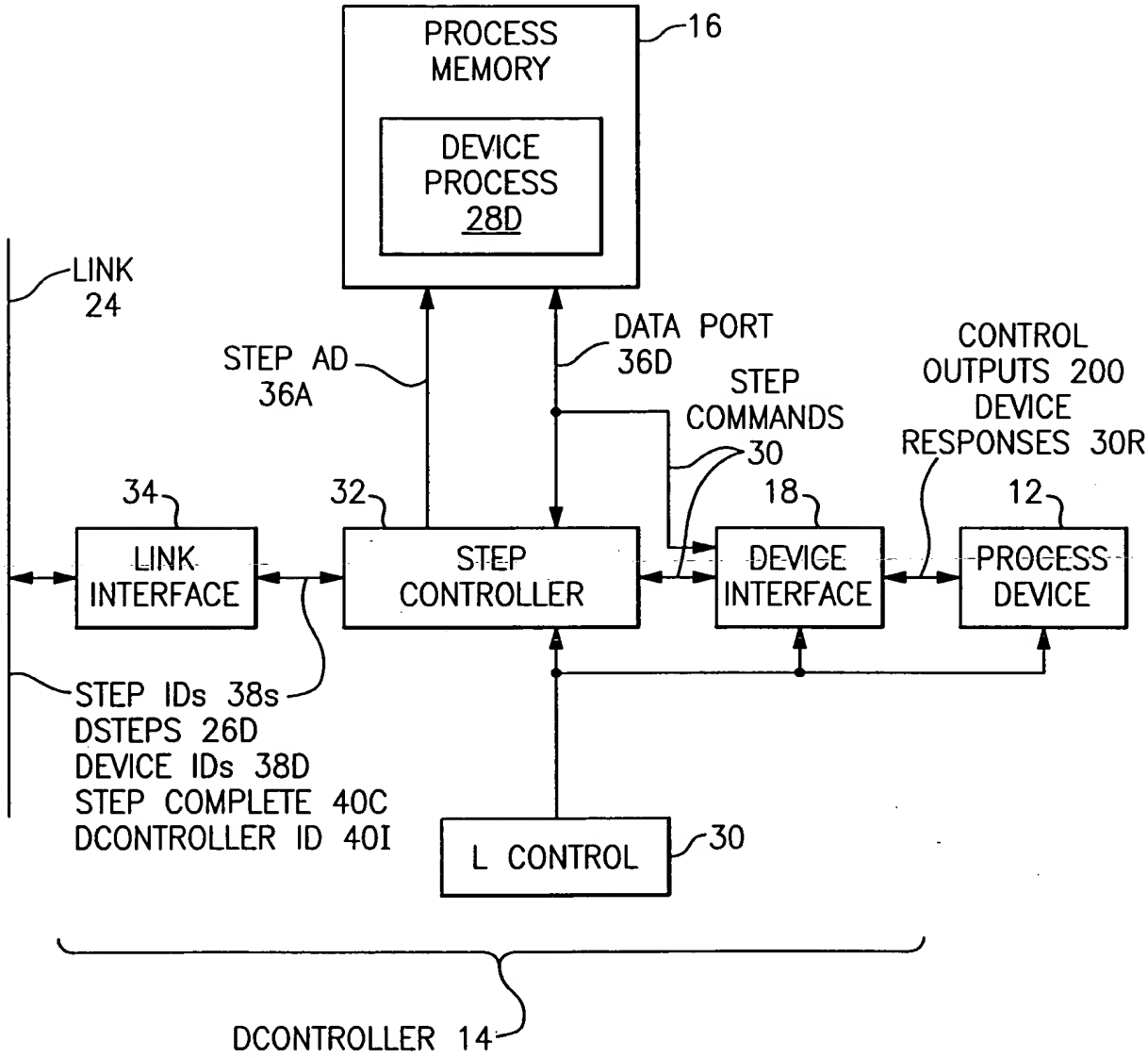
PROCESS MEMORY
16
DEVICE PROCESS 28D
LINK 24
STEP AD 36A
DATA PORT 36D
STEP COMMANDS 30
CONTROL OUTPUTS 200
DEVICE RESPONSES 30R
34
32
18
12
LINK INTERFACE
STEP CONTROLLER
DEVICE INTERFACE
PROCESS DEVICE
STEP IDs 38s
DSTEPS 26D
DEVICE IDs 38D
STEP COMPLETE 40C
DCONTROLLER ID 40I
L CONTROL
30
DCONTROLLER 14

FIG.3

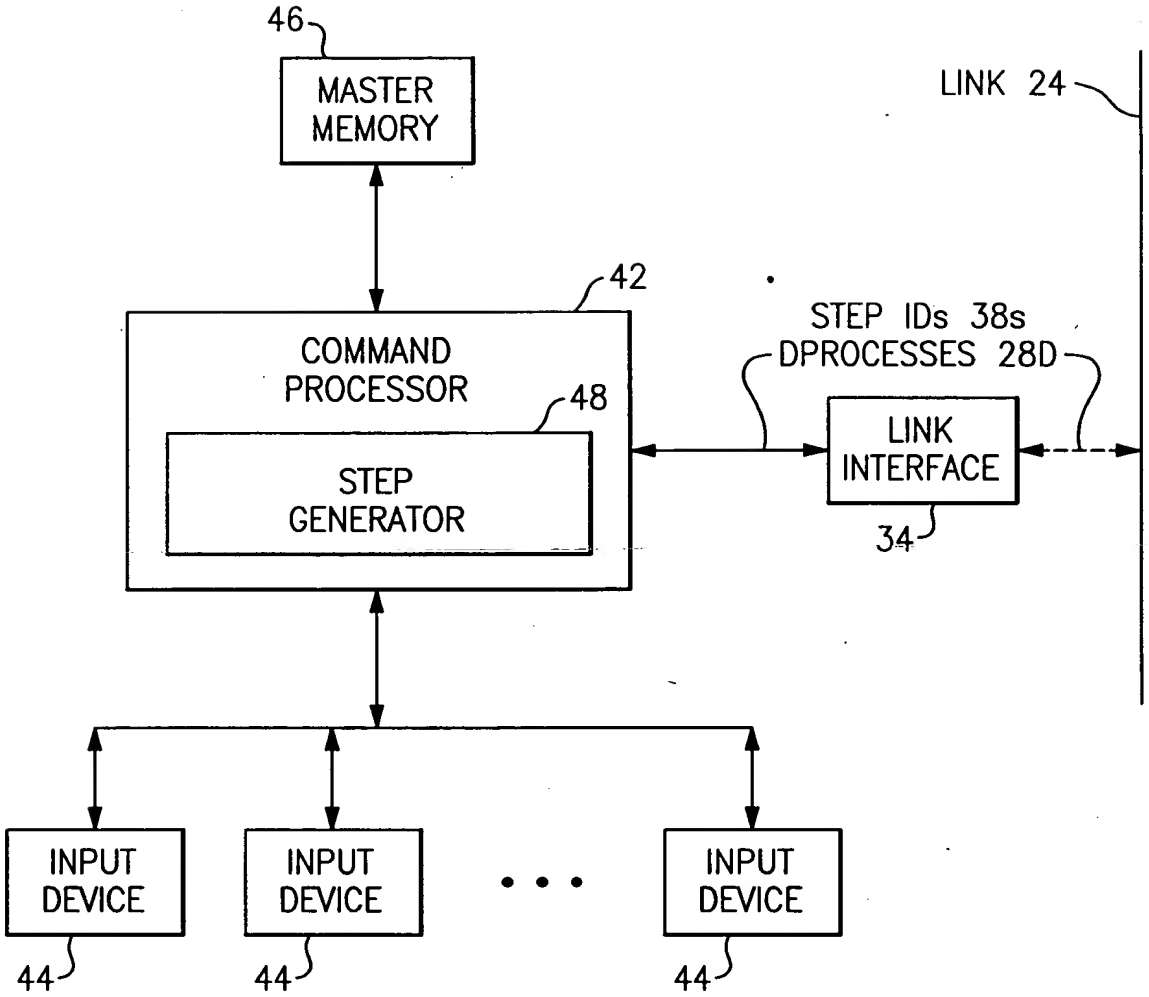
46
MASTER MEMORY
LINK 24
42
COMMAND PROCESSOR
48
STEP GENERATOR
STEP IDs 38s
DPROCESSES 28D
LINK INTERFACE
34
INPUT DEVICE
INPUT DEVICE
INPUT DEVICE
44
44
44
MASTER 22

FIG.4

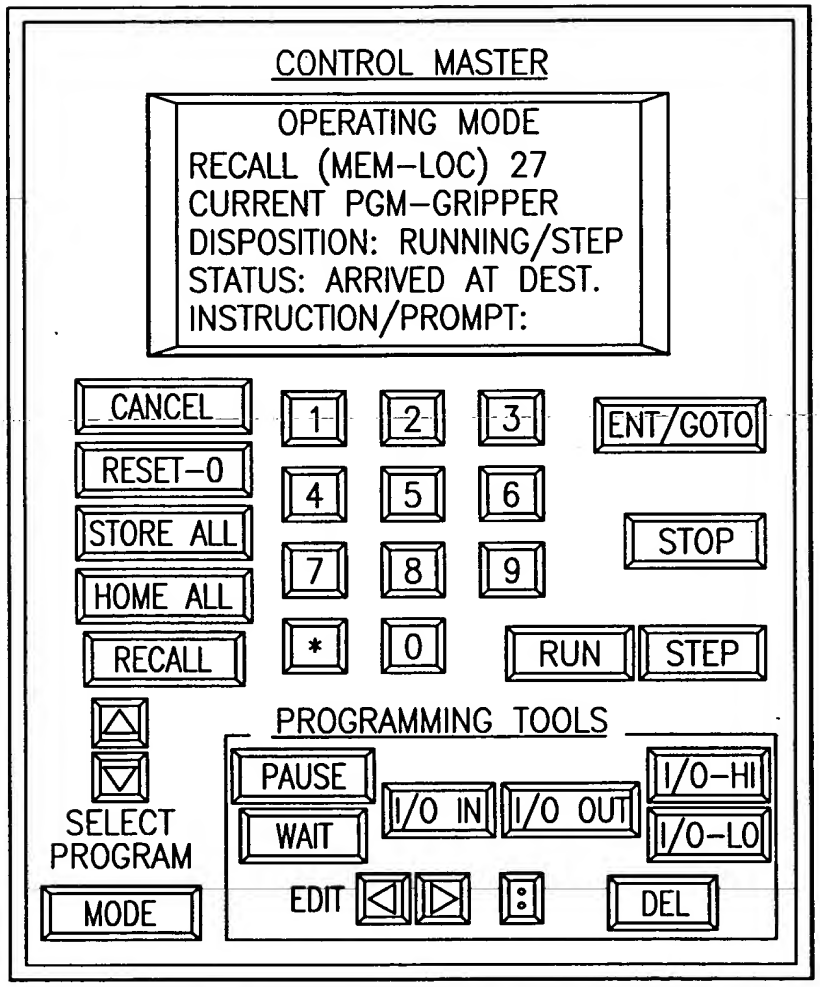
CONTROL MASTER
OPERATING MODE
RECALL (MEM-LOC) 27
CURRENT PGM-GRIPPER
DISPOSITION: RUNNING/STEP
STATUS: ARRIVED AT DEST.
INSTRUCTION/PROMPT:
CANCEL
RESET-0
STORE ALL
HOME ALL
RECALL
1
2
3
4
5
6
7
8
9
*
0
ENT/GOTO
STOP
RUN
STEP
PROGRAMMING TOOLS
PAUSE
WAIT
I/O IN
I/O OUT
I/O-HI
I/O-LO
EDIT
DEL
SELECT PROGRAM
MODE

FIG.5